

# Improving South Carolina OSHA's Outreach and Education Program

Ted K Austin

South Carolina Department of Labor, Licensing and Regulation

Certified Public Manager Research Project

4 February, 2019

## **Index**

Introduction and Problem statement	1
Scope and Purpose of Research Project	2
Structure of South Carolina Occupational Safety and Health Administration (OSHA)	3
Structure and purpose of South Carolina OSHA Outreach and Education section	3
Current Utilization of SC OSHA Outreach and Education Services by SC Employers	6
Research Methods	7
Survey Findings	8
Need for Changes to or creation of Outreach and Education Programs	9
Public Employers Recommendations for Additional Services or Topics	17
Accident/Fatality Employers Recommendations for Additional Services or Topics	18
Cost Savings by Improving the Outreach and Education Program	18
Evaluation and impact of improvements and Key Performance Indicators	19
Summary	19
Appendix 1    Survey Questions	21
Appendix 2    Public Employer Responses to Surveys	23
Appendix 3    Accident/Fatality Employers Responses to Surveys	32
Appendix 4    Training Events Provided	42
Appendix 5    Consultation Visits Provided	42
Appendix 6    Employers recommendations from Evaluation Forms	43

## Introduction and Problem Statement

South Carolina Department of Labor, Licensing and Regulation Office of Occupational Safety and Health is a 'State Plan'. State Plans are US Dept of Labor, Federal OSHA approved workplace safety and health programs operated by individual states or US territories. There are currently 22 State Plans covering both private sector and state and local government public employees. State Plans are monitored by Federal OSHA and must be at least as effective as Federal OSHA in protecting workers and in preventing work-related injuries, illnesses and deaths.<sup>1</sup> South Carolina's OSHA State Plan provides regulatory authority and enforcement of the OSH Act of 1972. SC OSHA's Outreach and Education Program is charged with providing consultative and training services to both public and private employers within the state of South Carolina.

The State of South Carolina averages in excess of 100 fatalities in the workplace annually, with 43,720 non-fatal injuries and illnesses also occurring in the workplace. These injuries cost SC employers, families and citizens in excess of \$732,000 million dollars per year, while the fatal injuries cost in excess of \$121,000,000 dollars.<sup>2</sup>

Many of these accidents and fatalities are a result of failure to follow compliance standards, lack of training in the requirements of the OSHA standards and lack of knowledge of OSHA standards by the employers as well as employees. The resulting fatalities and injuries result in hundreds of millions of dollars in direct and indirect cost to employers and employees, as well as thousands of lives impacted by the tragic injuries and fatalities.

Currently, on average annually approximately 975 employers within the state of South Carolina utilize training and consultation opportunities offered by SC OSHA Outreach and Education. Of the 430,928 employers in South Carolina, 406,536, or 99.4% are small business employers.<sup>3</sup> Of the total number of employers in the state of South Carolina, this utilization rate equates to 0.002%, or two-tenths of one percent of the entirety of the population of employers in SC utilizing the services provided by SC OSHA Outreach and Education.

Firms with fewer than 100 employees account for over 50% of the employers in SC, and have the largest share of small business employment.<sup>4</sup> A significant barrier to education and knowledge of the OSHA standards and requirements comes from the lack of resources available to small businesses. Large employers have more readily available resources, and often have professional safety and risk management staff to develop safety and health programs, provide

---

<sup>1</sup> US Department of Labor, OSHA website

<sup>2</sup> US Department of Labor, Bureau of Labor Statistics

<sup>3</sup> US Small Business Administration, South Carolina Small Business Profile, 2018

<sup>4</sup> US Small Business Administration, South Carolina Small Business Profile, 2018

training and enforce compliance with regulatory safety standards. Small employers typically do not have the resources (or at best very limited resources), do not have the ability to hire professional safety staff, and do not have the resources or knowledge to provide the many hours or required safety and health compliance training. This project will attempt to identify methods to increase the exposure of the programs and resources available to small businesses in South Carolina.

### **Scope and Purpose of Research Project**

This research project was developed in an attempt to identify areas of potential improvement within the Outreach and Education program.

This project will investigate and evaluate the effectiveness of SC OSHA's Outreach and Education programs. The programs offer training, education, consultations and inspections to public and private employers within the state of SC. While the programs are provided at no cost to all employers, there are significantly limited requests and utilization of the programs by employers. This project will also attempt to determine reasons for the limited utilization.

Consultative and training services are offered as a no-cost, on demand service, as requested by employers. Historically, consultative and training services requests have increased and decreased in relation to the number of Compliance Enforcement Officers performing inspections, indicating that among other factors, there was little public awareness of the program, there was hesitancy to utilize the program, and many employers were reactive and requested Outreach and Education Program services only after a Compliance Enforcement inspection or referral from a Compliance Enforcement Officer.

OSHA Compliance Enforcement is an integral part of the South Carolina State Plan and includes intervention in both private and public sectors. In fiscal year 2018, South Carolina OSHA conducted 503 inspections/investigations. During this period, 389 safety related inspections and 114 health related inspections were conducted. During these inspections, 531 violations were issued. Of these violations, 394 were serious violations, 134 were other-than-serious violations, and 3 were repeat violations.

A significant issue faced by SC OSHA is that Compliance Enforcement experiences a significant compliance officer turnover rate, with a turnover rate at times reaching nearly 40%.<sup>5</sup> Historically the number of Outreach and Education programs service requests received annually correlate significantly to the number of inspections performed by OSHA Compliance. For a brief time during the period 2015 to 2019, the Compliance Enforcement section employed had as few as ten (10) Compliance Officers. With the significantly reduced number of Compliance Officers in the field, Outreach and Education experienced a reduced number of requests for service. The time required to replace a Compliance Officer into a field-ready condition capable

---

<sup>5</sup> Recruitment and Retention, CPM Research Project, Anthony Wilks, 2009

of performing inspections can take from one (1) to one and half (1.5) years considering the lengthy recruitment, hiring and training processes. This time lag in replacing functional Compliance Officers reduces the number of inspections being performed, and decreases the number of service requests to the Outreach and Education Program.

This project will research and attempt determine the effectiveness of the marketing and solicitation process of the program and seek methods to improve the marketing; research identifiable deficiencies; explore and evaluate reasons for limited utilization of the programs and opportunities to improve the utilization of the respective programs. This project will also attempt to estimate a correlated reduction of work related fatalities, injuries and financial impact to employers and employees due to the reduced number of workplace incidents through a greater utilization of the programs.

The scope of this project will be limited to the Outreach and Education Program section of SC OSHA, focusing on limiting factors, identifiable issues and deficiencies, and research into methods and opportunities to improve current processes and services and increase the utilization of the program, with improvement focused on decreasing the reliance of Compliance Enforcement referrals as a significant source of requests for the Outreach and Education programs.

The Outreach and Education programs purpose is to save lives and prevents tragic injuries and accidents to employees in the State of SC through the training and education of employers and employees on a multitude of safety and health standards in the workplace. It is believed that a significant number of employers are not aware of the services provided by SC OSHA Outreach and Education, many have a limited knowledge of safety and health requirements in the workplace, and many have a fear of utilizing or contacting OSHA, fearing the issuance of regulatory violations and financial penalties and targeting by Compliance Enforcement.

### **Structure of South Carolina Occupational Safety and Health Administration (OSHA)**

The Office of OSHA is separated into four areas: Administration, (housing both the Offices of OSH Statistics and OSHA Standards), Compliance Enforcement, Legal and also Outreach and Education areas. The Outreach and Education program was rebranded in 2018 as Outreach and Education (O&E), having previously been known as OSHA Voluntary Programs (OVP). The Outreach and Education section, which shall be the focus of this research project, is charged with providing education, consultation and training to employers within the state of South Carolina, and these services are provided at no cost to the employer or employees.

### **Structure and purpose of South Carolina OSHA Outreach and Education Program**

The Office of OSHA Outreach and Education program provides safety and health courtesy inspections, technical assistance, and safety and health training to aid the business

community in voluntary compliance with all areas of the Occupational Safety and Health Act. In addition, the program also provides recognition and outreach programs such as the Palmetto Star, SHARP, Alliances and Partnerships. These services are free to both public and private sector employers. Safety and health consultations are confidential. Training resource materials, brochures, booklets, audio-visual programs, seminars, lectures and extended courses have been developed to assist employers in providing employees a safe and healthful work environment. The Voluntary Protection Program (VPP), or Palmetto Star Program, and the Safety and Health Achievement Recognition Program (SHARP) recognize manufacturing facilities with exemplary safety and health records and reduced injury and illness rates. A brief description of each Outreach and Education program follows:

- Consultation Services

Free consultations by safety and health professionals with expertise in safety and health workplace issues are provided to businesses and public sector employers. Consultants assist employers identify and correct specific hazards, provide guidance in establishing or improving an effective safety and health program, and offer training and education for employers, supervisors, and employees. The primary target of the program is smaller businesses in higher hazard industries or with especially hazardous operations. Consultations are independent of SC OSHA's enforcement activity, and records are kept confidential and separate from OSHA's enforcement program. The only obligation of the businesses using these services is to correct, in a timely manner, any job safety and health hazards found during the consultation.

- Education and Training

Training classes are provided for employees and employers covering key safety issues facing workplaces today. This service within OSHA Outreach and Education provides a variety of training programs and presentations designed to reduce or eliminate safety and health hazards in the workplace. Upon request, training is available to employers and employees in the public and private sector and may take place on-site, requiring participation of twelve or more employees. Annually, on average more than 400 training programs are delivered to employees throughout the state of SC, resulting in more than 10,000 employees receiving training and education on various SC OSHA regulations and other safety and health issues.

- Outreach

The Outreach section is responsible for the recognition programs; Palmetto Star (VPP) and the Safety and Health Achievement Recognition Program (SHARP). This program is also responsible for alliances and partnerships with South Carolina businesses and associations.

- Palmetto Star Voluntary Protection Program (VPP)

The VPP program provides recognition to qualified employers who exceed the requirements of the Occupational Safety and Health Act of 1970 in providing their workers a safe and healthy worksite. Any employer in North American Industry Classification System (NAICS) 31-33 may choose to apply. A Palmetto Star site is one that has proven it is able to function independently of OSHA and is self-sufficient in its ability to control hazards at the worksite. The company must have a total injury/illness incident rate and a total lost workday incident rate that is 50 percent or below the state average for the applicant's industry for each of the last three years.

- Safety and Health Recognition Program (SHARP)

The SHARP Program provides recognition to qualified employers who exceed the requirements of the Occupational Safety and Health Act of 1970 in providing their workers a safe and healthy worksite. SHARP is designed to provide incentives and support to those employers that implement and continuously improve effective safety and health management system(s) at their worksite. The company must have a total injury/illness incident rate and a total lost workday incident rate that is below the state average for the applicant's industry for the last two years of published Bureau of Labor Statistics (BLS) rates.

- Alliances and Partnerships

A partnership is a voluntary agreement between the South Carolina Department of Labor, Licensing and Regulation, Division of OSHA and general contractors of a construction site project that lasts a specified period of time. It is designed to encourage, assist and recognize efforts to eliminate serious hazards and achieve a high degree of worker safety and health.

SC OSHA assists partners in the reduction of injuries and illnesses through the long-term development of effective safety and health management systems that address hazards in accordance with the OSH Act. A partnership must meet established measurements which are verified through quarterly joint inspections and documentation provided by the partner at least monthly. The partnership ends one month after project completion or termination by either party with a 30-day notice of intent.

Due to length of time and manpower involved with each partnership, only a limited number are allowed to exist concurrently. Partnership agreements include sections on purpose

and scope, objectives and measures, participation criteria, statement of agreement, evaluation criteria, inspections, termination and suspension, and project safety and analysis.<sup>6</sup>

### **Current Utilization of SC OSHA Outreach and Education Program Services**

Currently, an annual average of approximately 975 employers within the state of South Carolina utilizes training and consultation opportunities offered by SC OSHA Outreach and Education.<sup>7</sup> As stated, this utilization rate equates to 0.002%, or two-tenths of one percent of the entirety of the population of employers in SC utilizing the services provided by SC OSHA Outreach and Education.

A significant percentage of training and consultation service requests are from repeat employers, who repeatedly utilize trainers or consultants to meet their annual compliance requirements. These repeat employers consist of employers such as large construction general contractors, manufacturing plants, doctors and dentists as well as other medical facilities.

Outreach and Education trainers provide on average a total of 375 training events per year to over 750 employers. During the past 5 years, on average three O&E trainers and one training supervisor provided training to **10,110** employees, while providing **11,904** contact hours of training per year.

Outreach and Education training historical training events by year:

	2019 est.	FY 2018	FY 2017	FY 2016	FY 2015	FY 2013
Trainer 1	98	100	16	-	-	
Trainer 2	75	90	113	117	107	126
Trainer 3	120	127	128	146	144	175
Trainer 4	-	-	40	49	41	95
Training Supervisor	15	30	36	45	37	40
Total Training Events	308	347	333	357	329	436

2014 training activity records were incomplete and totals were not able to be located for calculation.

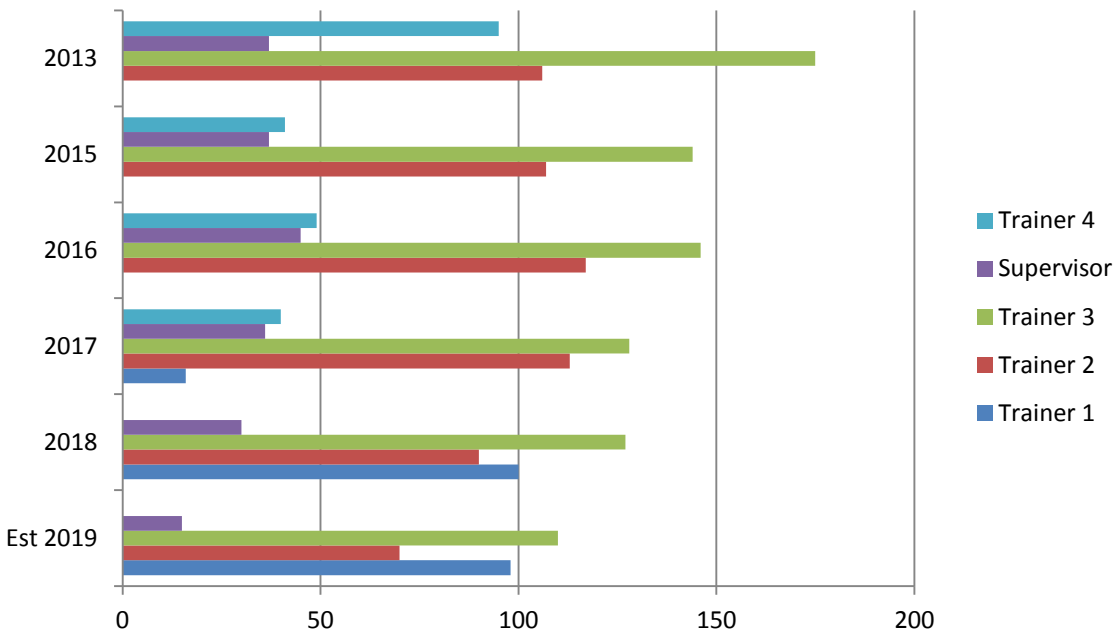
A review of recent fiscal year activity records shows the highest number of training events having occurred in 2013, with a total number of 436 training events provided by Outreach and Education trainers.

---

<sup>6</sup> South Carolina Occupational Safety and Health Administration website

<sup>7</sup> SC OSHA Outreach and Education Activity Logs and Consultation utilization Reports





## Research methods

The United States Department of Labor Bureau of Statistics was utilized to obtain historical injury and illness rates. These rates were analyzed for trending, comparison and cost.

The South Carolina Department of Labor, Licensing and Regulation, Office of OSHA reports were obtained to review historical injury and illness rates. These rates were analyzed for trending, comparison and cost.

A five year history of Outreach and Education/OSHA Voluntary Programs Training and Consultation Evaluations were obtained and reviewed. Requested and recommended changes were reviewed and considered as changes to process, programs and documentation.

Two surveys were created and the link for the survey was emailed to employers providing the ability to anonymously participate. Due to privacy regulatory restrictions, the author of this project was restricted from telephoning or otherwise directly contacting the employers participating in the surveys. The groups provided with surveys were:

- A. Public/Governmental Safety and Risk Management professionals in South Carolina working for governmental entities. This group consisted of State, County, Municipality and Special Purpose District safety professionals, as well as Worker's Compensation and insurance Carriers specializing in services for public entity employers.

- B. Public and Private Employers in South Carolina who suffered a workplace injury, illness or fatality and SC OSHA Compliance Enforcement investigated the incident. This group consisted of both governmental entities as well as private employers within the state of SC.

#### Responses to surveys:

The public entity safety and risk management professional survey was offered to 117 entities. Of those 117 potential surveys, 37 respondents completed the survey.

The employer group survey who had suffered workplace accidents, injuries and fatalities was offered to 97 recipients. Of the 97 recipients of the survey, 13 respondents completed the survey.

#### Survey findings

Responses to the surveys and statistical reporting on each response are located in Appendices sections 2 and 3 of this document. Key indicators from the surveys are as follows:

##### Public Safety and Risk Management professional survey key indicators:

- A. 16% of public entity employers indicated they have a fear or are hesitant to utilize OSHA O&E, fearing that it would prompt an inspection by OSHA Compliance Enforcement.
- B. 42% of the respondents reported having been unaware of the existence of OSHA O&E training or consultation services.
- C. Of respondents that have utilized OSHA Outreach and Education;
  - 3% of the respondents reported utilizing consultation services only
  - 42% of the respondents reported utilizing training services only
  - 17% of the respondents reported utilizing both consultation and training
  - 39% of the respondents reported not having used any O&E service

##### Employers with prior injury, accident or fatalities survey key indicators:

- A. 58% of employers indicated they had a fear or were hesitant to utilize OSHA O&E prior to the injury incident and subsequent Compliance investigation, fearing that it would prompt an inspection by OSHA Compliance Enforcement.
- B. 60% of employers with accidents or fatalities reported having been unaware of the existence of the O&E training or consultation services prior to the injury incident.

- C. 8% of the respondents reported utilizing consultation services only  
0% of the respondents reported utilizing training services only  
23% of the respondents reported utilizing both consultation and training  
69% of the respondents reported not having used any O&E service

Additionally, all state program websites were reviewed and analyzed for training methods, types of offerings available such as online training, live and recorded webinars, regional training events, and offerings were evaluated for training frequency, locations, and styles of presentations offered.

### **Need for changes to or creation of Outreach and Education Programs**

Through the evaluation of the research data compiled, review of existing training methods and presentations, review of client requests and needs of the changing workforce, the following are recommended changes to products and methods to improve the effectiveness and efficiency of the SC OSHA Outreach and Education program.

SC OSHA Outreach and Education employs 3 full-time trainers and 1 working supervisor to provide training for all employers who request services. It appears financially infeasible to attempt to hire additional trainers to provide services to all employers in the state: In excess of 2,600 additional trainers would be required, at a cost approaching 200 million dollars annually. Such an expense would clearly be burdensome to the agency and is not a reasonable, financially viable option. Therefore other efficient and effective methods must be explored and implemented.

Trainers and Consultants should continue to update, develop and provide lecture style training and consultations utilizing PowerPoint as a presentation tool. However, other methods must be developed and employed in consideration of the rapidly changing workforce.

Additional methods of training and consultation, as well as additional programs and processes should include:

- A. **Develop online training and consultation products:** Commercially available software packages are available that enable end users to develop high quality slide-type presentations. Presentations can be developed with 'voice-over' style presentations which can be modified as standards are updated or Letters of Interpretation are developed for respective compliance standards. More complex software tools can be utilized to develop presentations that require successful completion of testing prior to moving to additional content. Pricing for these products range from approximately \$12 dollars per month to in excess of \$1200 dollars annually. Once subscriptions have been purchased, OSHA staff will be utilized to develop and modify the training presentations.

Recording actual training and consultative sessions and attempting to replay those videos require large amounts of storage space and utilize tremendous amounts of resources and bandwidth while being viewed by users. Video format media also requires large resources on the end-users computer, are typically found unappealing to viewers and viewers are often uninterested in the content. Considering this factors, it is not recommend that recorded video style online training be provided.

As survey respondents indicated, many employers refuse to utilize OSHA Outreach and Education programs for fear of being targeted by OSHA Compliance. Providing online services, such as abbreviated training videos on required training topics, training on how to perform inspections, as well as other topics and products would provide a method for employers and employees to receive valuable training experience without the fear of direct contact with O&E consultants or trainers.

- B. **Provide regional live training opportunities:** OSHA O&E should schedule and regularly provide commonly requested training topics in population centers across the state. Large conference rooms are available in adjacent buildings to OSHA office in Columbia which can be utilized at no cost to the agency. Other population centers such as Greenville, Charleston and Myrtle Beach should be locations where regularly scheduled highly requested training topics are provided. Often, governmental entities have large spaces available and make the spaces available to OSHA O&E for use at no cost.
- C. **Provide live and recorded webinars:** To assist employers in receiving training and valuable information without incurring the expense of travel to training locations and the associated extra lost time of productivity by employees, OSHA should provide live webinars on highly requested topics, organizational updates, updates to standards or Letters of Interpretation, and other critical information. The webinars would be recorded and made available for on-demand replay by employers and employees at their convenience for review or training purposes. A large number of commercially available webinar production products are available online which can be utilized to develop, create and publish live and recorded webinars by the end user. OSHA staff would be utilized to develop and present the webinar sessions.
- D. **Additional training and consultation topics and products:** Training and consultation products should be developed for additional standard topics of those currently provided, and materials should made available for training presentations and online training and reference content. Employers could access and utilize the products at a convenient time for program development or employee training.

In addition to duplicate topics being provided online in English and Spanish, 'portable' training presentations should be developed in Spanish for trainers and

consultants to provide to Spanish speaking audiences. Interpreters would then be only required for questions and follow-up dialogue.

- E. **Motor Vehicle Safety Programs:** While OSHA Standards do not specifically address highway traffic related motor vehicle injuries and fatalities, while regulated under the General Duty Clause, such incidents are not generally investigated. However, 48% of all work related injuries and fatalities are a result of motor vehicle related incidents. Considering that nearly one-half of all workplace injuries and fatalities are motor vehicle related incident, OSHA should at a minimum discuss with and encourage employers to develop significant motor vehicle safety programs and policies, provide training on motor vehicles safety and encourage and require employees to utilize seatbelts while operating motor vehicles, as well as restrict the use of cellular telephones while operating company vehicles.
- F. **Employ personnel to modify and add content to SC OSHA's website:** As a significant amount of new content will be added to the website during the next several years, and changes and modifications will be routinely required, a more efficient and effective method of updating the website is needed. SC OSHA should employ personnel in a webmaster position with the capability and knowledge to add, modify and maintain the website, rather than requesting the SC Dept of Technology to make changes to the website.
- G. **Update documentation and forms:** many forms and documentation are old, in poor quality, difficult to read and require re-entry or manual writing or responses from employers. Documents need to be updated and re-created in modern, professional formats and styles. Where able, all documents that can be created in a 'fillable' format should be created as such and provided electronically or on the website so that employers can more quickly and easily respond and provided the required or requested information. Providing fillable electronic responses and forms will speed the response time for the employer's information and move the consultation process more quickly and efficiently.
- H. **Ensure Compliance Enforcement positions are fully populated:** As a large driver of service requests, as the number of compliance inspections decrease (due to workload, reduced number of compliance officers and other reasons), O&E service requests likewise have decreased. SC OSHA should implement measures to minimize high turnover rates of compliance officers, as well as implement an accelerated process for recruiting and retaining compliance personnel. An example would be to initiate the recruitment process on a '1 for 1' or '2 for 2' basis: rather than waiting to recruit 5 or more new employees, which requires those prior employees to have already terminated employment with the agency, procedures could be implemented to begin the recruitment process immediately as an employee terminates employment. This would also require changes to training and scheduling methods for the compliance officers in-training, but would assist in the prevention of having

significantly lower number of Compliance Officers in the field, thereby reducing the impact on other services provided by OSHA, such as requests for services to O&E, as well as employers maintaining a higher level of awareness through increased compliance presence.

- I. **Market the Outreach and Education Programs:** The Outreach and Education Program must move away from its historical dependence on Compliance Enforcement's inspection referrals as a main source spurring service requests. Methods of marketing and solicitation that should be employed are, but not limited to the following:

#### **Public Service Announcements**

Develop both radio and television PSA's to promote and educate employers about the programs and benefits of OSHA O&E.

#### **Social Media**

As Social Media has become a mainstream source of information for many people, and a sole source of information for some, it is an extremely important tool for providing information to the public.

An expanded use of the existing Twitter account to describe programs offered by Outreach and Education. Twitter would also be used to advertise training and consultative events and opportunities.

A Facebook account would be created to describe programs offered by outreach and Education, to advertise training and consultative services and events, as well as provide 'Facebook Live' informational sessions or abbreviated training sessions. Facebook live sessions could also be used by consultants to update and discuss consultation and abatement status with employers.

A Youtube channel would be created and utilized for providing informational updates, training content, and other pertinent information, allowing employers to access information without accessing the SC OSHA website and fearing that their presence is being noted or tracked for enforcement activities.

Direct emailing would be utilized to contact employers directly with information provided via email containing content describing programs services offered, training and consultative services offered, and an explanation of the separation of the Outreach and Education program and the Compliance Enforcement group.

Other platforms would be utilized as their popularity grows, such as Instagram, Pinterest and others, to generate interest in Outreach and Education products and services, as well as provide limited consultative and training products.

### **Speaking to Associations and Trade Groups**

Speaking at Association and Trade Group monthly meetings and conferences provides an unequalled opportunity for O&E members to reach large numbers of employers. In a single speaking event, trainers have had exposure to over 150 employers, with speaking events exceeding one hour in length. This provides a captive audience for an extended period of time providing the opportunity to discuss and market O&E services and opportunities, as well as clarify misconceptions about OSHA and O&E programs.

Senior staff members, trainers and consultants should solicit opportunities to speak at association and trade group monthly meetings and annual conventions, as well as seek regional training opportunities through the use of trade groups and associations. These training opportunities provide the ability to provide training to multiple employers in a single event, and significantly reduce the number of repeat offerings required when providing to sessions to individual employers.

- J. **Focus on small employers and limit services to large employers:** Considering that 99.4% of businesses in SC are small business, and as discussed the great majority of these small businesses do not have the resources to employ professional risk management and safety staff, SC OSHA O&E should focus its resources on assisting small businesses. O&E should consider limiting and restricting the number of consultation and training visits and services to large employers, encourage the employers who have professional safety staff to provide their own training, or supplement their consultation and training events with internally developed and provided events, commercially available products, utilization of insurance carrier provided services, etc.
- K. **Direct outreach and contact:** Senior Staff, trainers and consultants would visit employer's in-person, introduce OSHA Outreach and Education, and discuss in detail the program and services available. Brochures would be provided for additional information and would provide contact information, additional resources and information about available O&E programs, to include clarity on the separation of Compliance Enforcement and Outreach and Education programs.

- L. **Brochures and mailers:** While often an expensive method, professionally developed and printed brochures are an effective method of providing information, creating interest and prompting follow up activity. Brochures would be professionally developed and printed, and would be available for direct mailing, for providing to association and trade groups for distribution to their members, and for distribution by O&E staff members in the field.
- M. **Compulsory training or consultative service:** Many employers are apprehensive, hesitant and in many cases refuse to contact or utilize SC OSHA Outreach and Education training or consultative services, and therefore often do not obtain or provide required training and education to employees. As part of the abatement process following a compliance inspection, the Compliance Manager and/or the Informal Conference Hearing Officer should consider requiring employers to seek and complete training and consultative services for topics related to deficiencies and violative conditions observed during the inspection process. SC OSHA Outreach and Education could be offered (or required) as a no-cost option for obtaining the required training or consultation, to ensure that employers are meeting their regulatory training requirements.
- N. **Languages of training programs:** Development of online training and consultation presentations should include the development of identical topics in English and Spanish versions for availability of multiple language versions for online viewing. Approximately 27% of Construction Industry employees are Hispanic, with other industries such as agriculture, hospitality have in excess of 20% Hispanic employees.<sup>8</sup> Bilingual members of OSHA O&E staff could be utilized to assist in the development and translation of the online presentations and recording of audio components.

---

<sup>8</sup> United States Department of Labor, Bureau of Labor and Statistics



Percentage of industry employment that is of Hispanic or Latino ethnicity, 2014 annual averages

Industry sector	Percent
Construction	27.3%
Agriculture, forestry, fishing, and hunting	23.1
Leisure and hospitality	22.3
Other services	19.0
Mining, quarrying, and oil and gas extraction	18.6
Transportation and utilities	17.2
Wholesale and retail trade	16.4
Total, all industries	16.1
Professional and business services	16.0
Manufacturing	15.8
Education and health services	11.5
Public administration	11.4
Financial activities	11.3
Information	10.5

**O. Adjusting for the Millennial workforce:** Millennials are those who were born between 1981 and 1996. Gallup estimates that as of this writing, there are approximately 73 million Millennials in the United States. At this level, Millennials already are the largest segment in the workplace, having become the largest segment of the population in 2016. According to the U.S. Bureau of Labor and Statistics, within the next two years, it is estimated that 50 percent of the U.S. workforce is expected to be made up of Millennials. By the year 2025, 70 percent will be Millennials and by the 2030, 75 percent of the workforce will consist of Millennials.<sup>9</sup> Millennials have significantly different learning methods and needs, and with the onset of changes to the workforce and learning styles, the Outreach and Education section must implement other methods of training, and begin development and implementation of these methods and changes immediately.

Training presentations by Outreach and Education consist of PowerPoint based lectures, with videos used as supplemental information. A number of the training presentations were developed years ago, and have only had minor updates to content as changes to standards occur. Some of the videos utilized were produced 10 to 20 or more years ago, are of poor visual quality, and often are difficult to run while imbedded within the PowerPoint presentations.

These types of presentations, while effective and appropriate for learning methods of older generations, are becoming increasingly ineffective for Millennial generations, and will be largely obsolete based on the working population needs within as few as five (5) years.

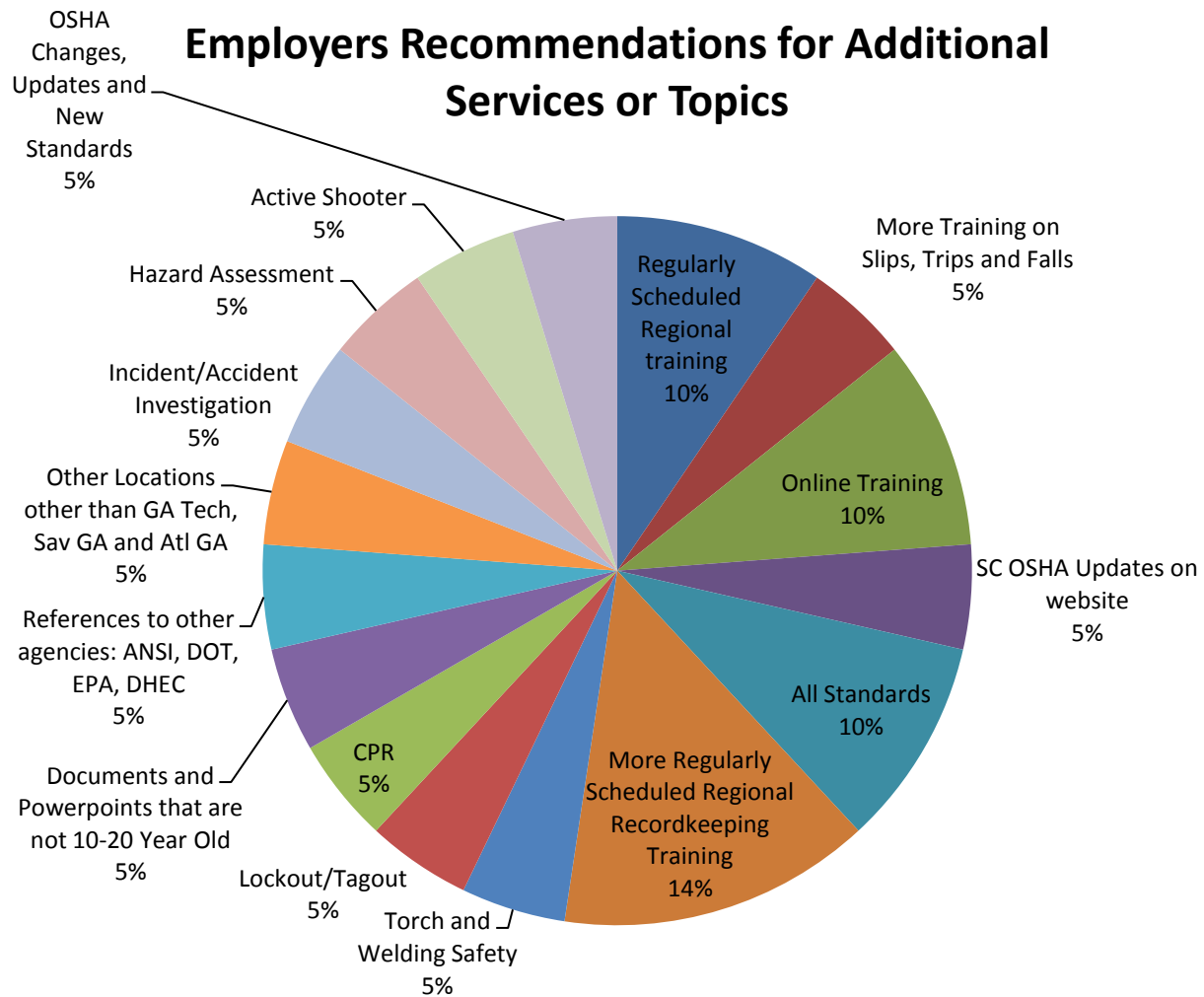
<sup>9</sup> Dynamic Signal, Key Statistic About Millennials In The Workplace, Oct 2018

Millennials, as many studies have shown, have significantly different needs and learning styles for there to be an effective transfer of information and knowledge. Millennials absorb material much more effectively when presented with smaller, quicker samples of information, such as the '160 character tweet'. Millennials also absorb material more effectively when the material is presented with a reward system associated with the presentation, such as gifts, tokens, coins, or other real or digital reward, or the presentation is presented in a 'gamer style' or competitive style of presentation.

There are a number of commercially available platforms which allow the user to create and develop presentations in competitive and gamer styles of presentations. O&E staff would develop curriculum utilizing presentation styles conforming to these styles of learning, including gamer or competitive style presentations for use with millennial audiences. Live presentations would be developed to utilize competitive learning opportunities and software platforms that appeal to millennial audiences, and all presentations, whether for live onsite lecture, webinar or recorded for on-demand online viewing, should be adjusted or developed for the learning styles and needs associated with Millennials and the changing workforce.

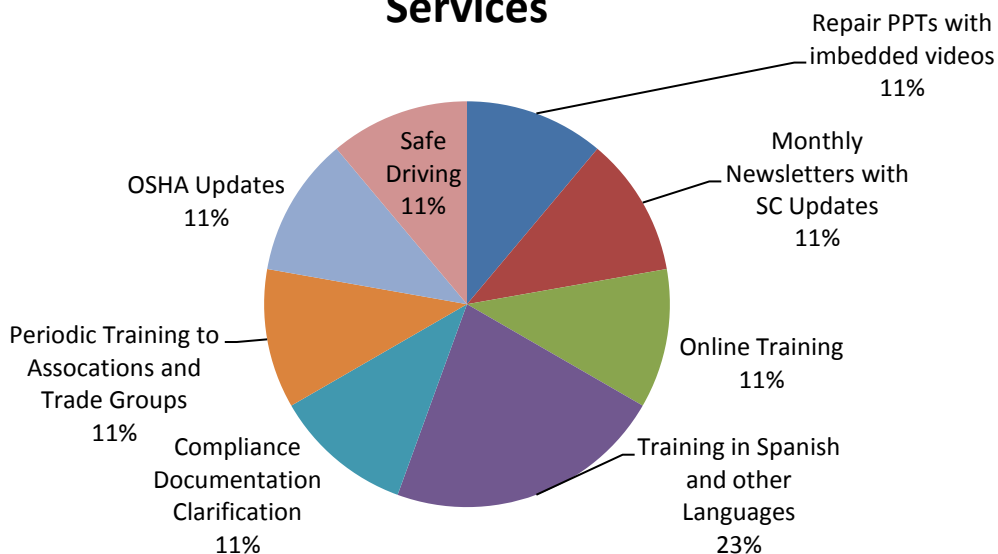
Surveys provided to employers requested employer's feedback on changes to programs, additional services that could be offered or additional topics or programs. Employer's responses to the survey indicated the following:

### Employers Recommendations for Additional Services or Topics



## Employers having experienced injuries or fatalities recommendations for additional services or topics

### Employers Recommendations for Additional Services



### Cost savings to employers, employees and citizens through the reduction of injuries, accidents and fatalities by improving the SC OSHA Outreach and Education program

While it is not possible to estimate the projected reduction in fatal and non-fatal injuries until historical data is collected and analyzed, it is possible to evaluate single incidents costs.

Implementing the recommended changes and additional programs listed could potentially significantly reduce both fatal and non-fatal injuries in the workplace in South Carolina. By reducing or preventing one fatal injury, the cost savings to employers, employees, families and citizens of South Carolina would be approximately \$1,400,000 million dollars. Reducing or preventing one non-fatal injury would provide costs savings of approximately \$17,437 per injury.

Providing the services and changes recommended would provide employers and employees with a greater knowledge of OSHA standards, provided a higher level of understanding of identifying and removing hazards in the workplace, and would provide a means for employers and employees to obtain this training and information (often anonymously), while doing so without fear of targeting by compliance enforcement, which as indicated by the respondents is

the greatest fear and hindrance of why employers do not utilize SC OSHA Outreach and Education. These changes to styles, availability and content of programs, and removal of barriers to the utilization of these programs, will have measurable impacts on workplace injuries, illnesses and fatalities in the workplace in South Carolina.

### **Evaluation and impact of improvements and Key Performance Indicators**

Evaluation of the impact of these program changes will be measured through both short term and long term Key Performance Indicators (KPI's).

Short term KPI's will include:

- The number of employers requesting training and consultative services.
- The number of live training events provided.
- The attendance of on-site and regional training events.
- The number of online training program views and utilization.

Long term KPI's will include:

- The types and causes of injuries, illnesses and fatalities in the workplace in SC.
- The number of recordable and reportable accidents, injuries and illnesses occurring in the workplace in SC.
- The number of fatalities in the workplace in SC.
- The total cost of all injuries, illnesses and fatalities occurring in the workplace in SC.

At least annually the Key Performance Indicators will be reviewed and the program will be evaluated for trending of utilization of services and impacts on numbers of injuries, illnesses and fatalities to determine if measurable improvements and utilization is occurring. The components of the program will be re-evaluated based on the findings of the review of KPI's, adjustments will be developed and additional programs will be considered for implementation.

### **Summary**

Implementation of the identified objectives will improve the overall Outreach and Education program through the improvement of services and programs, to include; availability of online training allowing employers to utilize training at their convenience; providing regional training opportunities; providing live and recorded webinar training and consultation

presentations; marketing the Outreach and Education programs; designing forms and publications for electronic submission; focusing on small employers, and; providing training opportunities in languages other than English, and the removal of perceptive barriers preventing employers from requesting or participating in Outreach and Education training and consultative services.

A primary method of assisting employers in the reduction of workplace injuries and fatalities is through the education of employers and employees on safety and health related topics. Providing additional training, education and consultative services to increase the knowledge of employers will have a positive impact on the number of injuries and fatalities occurring in the workplace in South Carolina. Following implementation of these programs, historical data will be collected on Key Performance Indicators to determine the impact of these programs, and additional studies and research will be conducted to evaluate and consider additional changes or programs.

Realistic time frames for these changes and the development and implementation of these resources will be a minimum of to 2 years from the onset of development before full implementation is completed. Key Performance Indicators then can be monitored as individual components of this program are implemented, and adjustments can be made to further improve the impacts of this program.

## **Appendices**

### **Appendix 1: Survey Questions**

The following questions were asked in two surveys sent to public and private employers in SC. The author of this project was restricted from calling employers directly, but was authorized to email employers with a poll. The first group contacted was a group of South Carolina public entity safety and risk professionals. The second group was a group of public and private employers in South Carolina who had experienced a workplace injury, illness or fatality in the workplace within the past 5 years. With the exception of the second question, the poll questions were identical for each group.

#### **Question 1:**

The results of this brief survey will be utilized to improve the effectiveness of SC OSHA's Outreach and Education Program services. This survey and its results are anonymous and confidential. Thank you for your participation in this very important survey. For more information about SC OSHA's Outreach and Education Programs, please visit <http://scosha.llronline.com/> Please check Agree to continue:

#### **Question 2: (Public Employer Group)**

Prior to this survey, were you aware of SC OSHA's Outreach and Education program (formerly OSHA Voluntary Program - OVP) which provides confidential, no-cost compliance consultation and training services to employers in South Carolina?

#### **Question 2: (Employers who experienced accidents, injuries or fatalities in past five years)**

If your company or entity has had prior contact with SC OSHA Compliance Enforcement for an inspection or investigation, prior to that contact were you aware of SC OSHA's Outreach and Education Program (formerly OSHA Voluntary Program - OVP) which provides confidential, no-cost compliance training and consultation services to employers in South Carolina?

#### **Question 3:**

Has your company/entity previously utilized SC OSHA's Outreach and Education services?

#### **Question 4:**

If your company/entity has utilized SC OSHA's Outreach and Education programs, which services were utilized?

#### **Question 5:**

If your company/entity has NOT utilized SC OSHA's Outreach and Education program services, please describe why your entity has been hesitant or has not utilized the services:

Question 6:

If your company/entity HAS utilized SC OSHA's Outreach and Education Program (or previously OVP services) but was initially hesitant to do so, can you describe the reason(s) for the hesitation?

Question 7:

What additional consultative services, training topics, presentation methods or services do you feel would be beneficial to employees and employers if offered or provided by SC OSHA Outreach and Education?

Question 8:

If your company/entity has utilized Outreach and Education's consultative and training services, how would you rate the effectiveness of the services provided:

Question 9:

How many full time and part time employees would you estimate are employed by your company/entity?

Question 10:

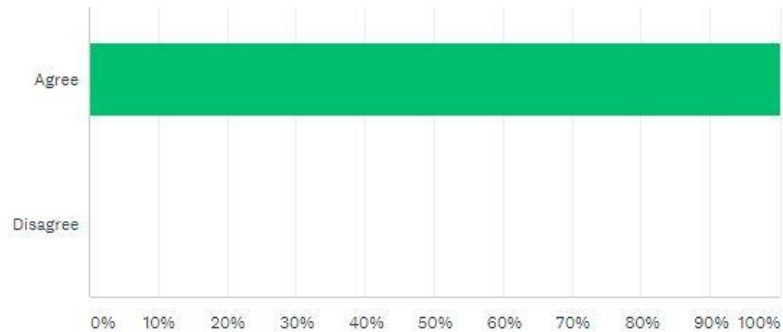
If you were aware of OSHA's Outreach and Education services prior to this survey, how did you hear about the programs (i.e. website, social media, colleague, word-of-mouth, compliance referral, etc)?



## Appendix2: Public Entity Safety and Risk Professionals Survey Responses

**Question 1:** The results of this brief survey will be utilized to improve the effectiveness of SC OSHA's Outreach and Education Program services. This survey and its results are anonymous and confidential. Thank you for your participation in this very important survey. For more information about SC OSHA's Outreach and Education Programs, please visit <http://scosha.llronline.com/> Please check Agree to continue:

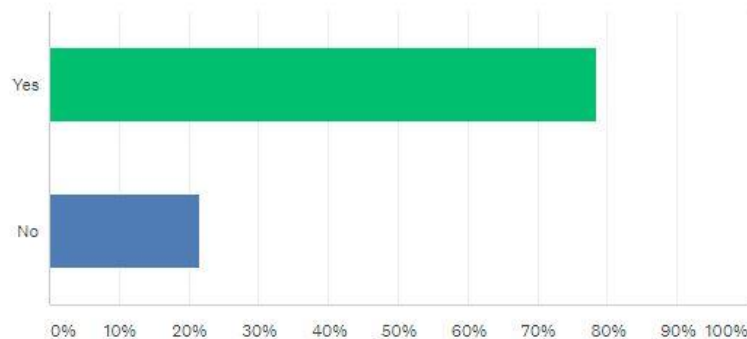
All respondents agreed to continue and participated in the survey.



ANSWER CHOICES	RESPONSES	
Agree	100.00%	37
Disagree	0.00%	0
Total Respondents: 37		

### Question 2:

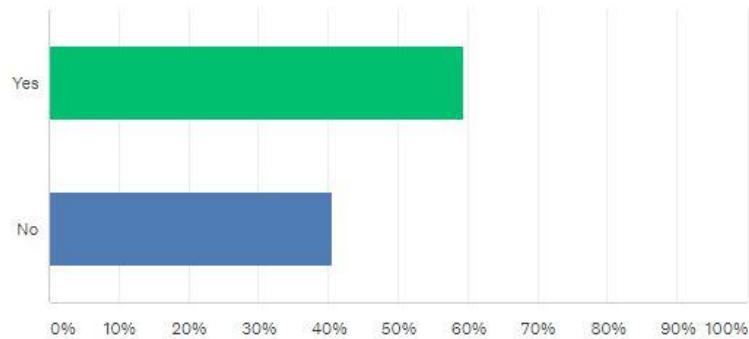
Prior to this survey, were you aware of SC OSHA's Outreach and Education program (formerly OSHA Voluntary Program - OVP) which provides confidential, no-cost compliance consultation and training services to employers in South Carolina?



ANSWER CHOICES	RESPONSES	
Yes	78.38%	29
No	21.62%	8
Total Respondents: 37		

### Question 3:

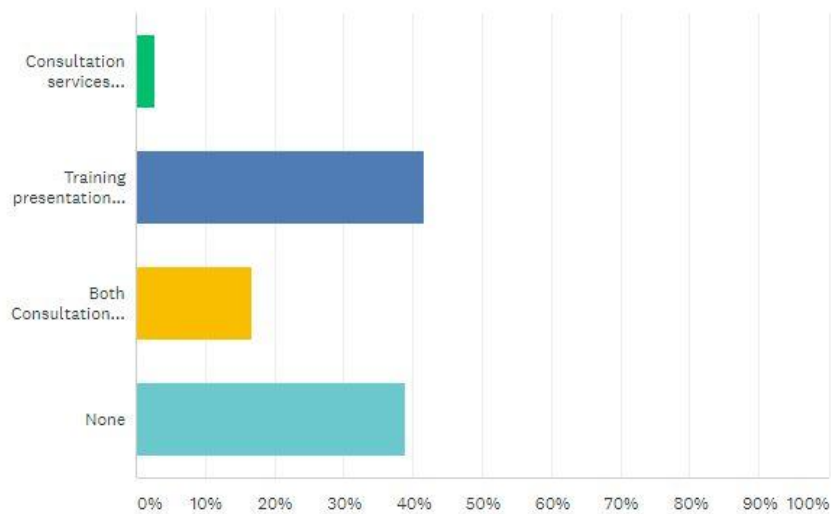
Has your company/entity previously utilized SC OSHA's Outreach and Education services?



ANSWER CHOICES	RESPONSES	
Yes	59.46%	22
No	40.54%	15
Total Respondents: 37		

### Question 4:

If your company/entity has utilized SC OSHA's Outreach and Education programs, which services were utilized?



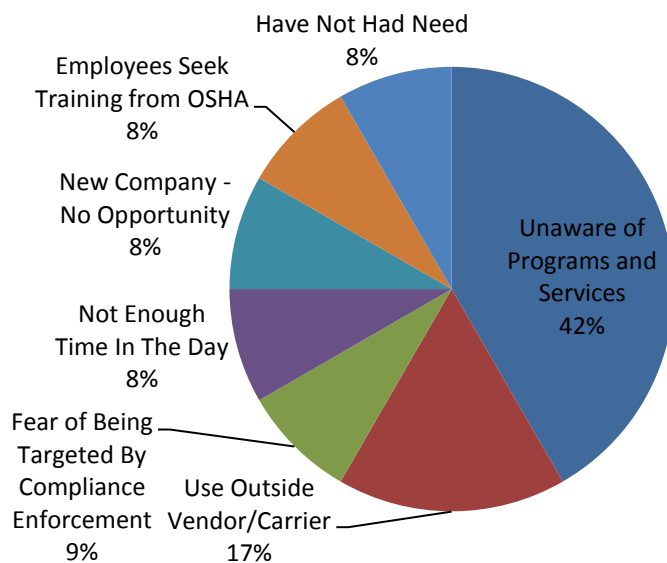
ANSWER CHOICES	RESPONSES	
Consultation services (Courtesy Inspections, Program Development, Industrial Hygiene monitoring services, etc)	2.78%	1
Training presentation services	41.67%	15
Both Consultation and Training services	16.67%	6
None	38.89%	14
TOTAL		36

### Question 5:

If your company/entity has NOT utilized SC OSHA's Outreach and Education program services, please describe why your entity has been hesitant or has not utilized the services:

Unaware of Program and Services	42%
Not advertised enough to remember it exists	
Aware of the program, but not very familiar with what is offered	
Not familiar with that is available	
Did not know this was an option	
Aware of the program, but not very familiar with what is offered	
Use outside Vendor/Carrier, OSHA Has Not Been Mentioned	17%
Use Outside Vendor	
Use SCSBIT (SC School Board Insurance Trust) to do walk through our schools	
Fear of targeting by OSHA Compliance Enforcement	9%
Municipal governments apprehensive about OSHA because they assume they will be targeted	
Not Enough Time to Get Work Done and Utilize SC OSHA	8%
We used the services then the agent called in to help fill out the OSHA form. Not enough hours in the day to get normal work completed and other training and education	
New Company – No Opportunity To Use O&E Yet	8%
Employees Seek out Training from OSHA and Execute It	8%
Our employees seek Outreach training from OSHA. They bring the information back and execute. So far a need for service is not warranted.	
Have Not Had Need	8%

### Reasons Why Public Employers Have NOT Utilized SC OSHA O&E Programs



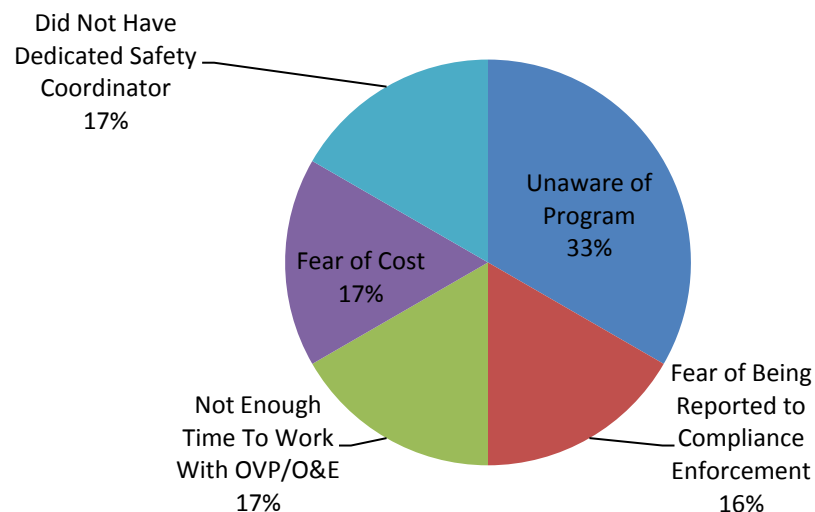
**Question 6:**

If your company/entity **HAS** utilized SC OSHA's Outreach and Education Program (or previously OVP services) but was initially hesitant to do so, can you describe the reason(s) for the hesitation?

**Responses:**

Was unaware of the service/program	33%
Fear of being reported to Compliance Enforcement	17%
No hesitation. Just not aware of the complete program	17%
No enough time in the day to work with OVP and get my normal workload completed	17%
Fear of cost	17%
Until recently we did not have a dedicated safety coordinator	17%

## Why Employers Were Hesitant to Utilize SC OSHA O&E



**Question 7:**

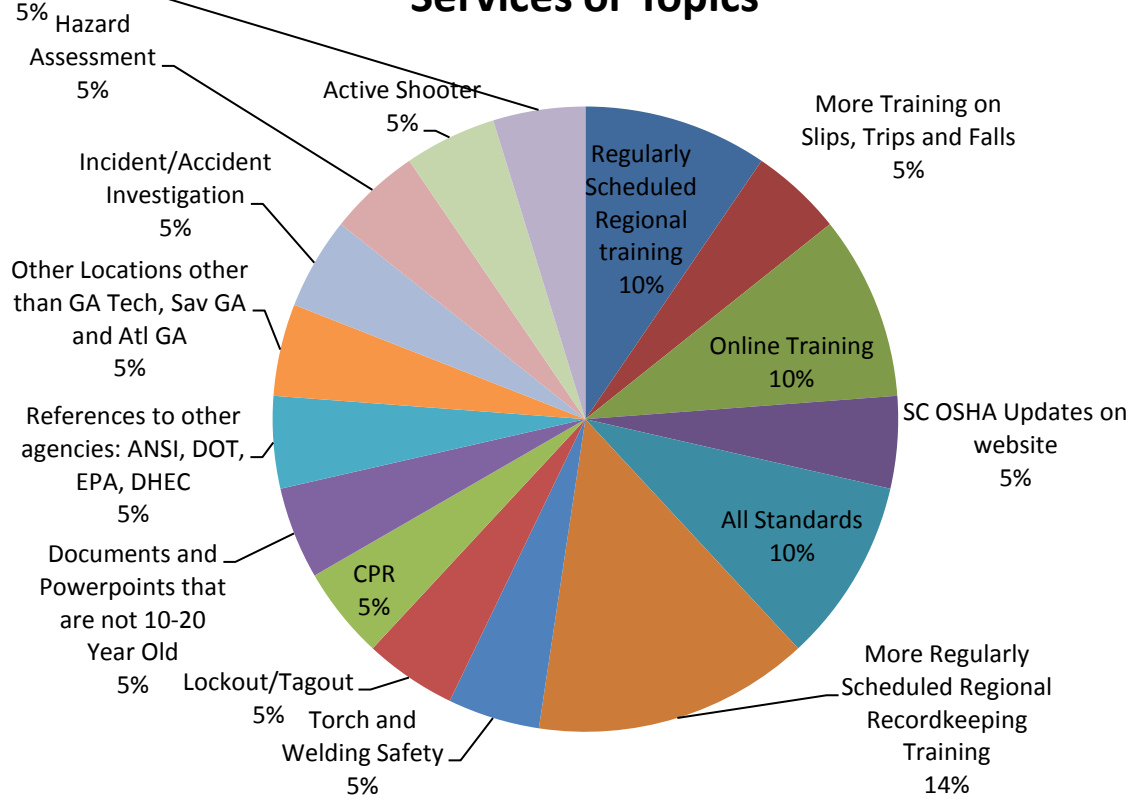
What additional consultative services, training topics, presentation methods or services do you feel would be beneficial to employees and employers if offered or provided by SC OSHA Outreach and Education?

**Responses:**

More Regularly Scheduled Regional Recordkeeping Training across the state	14%
Online Training/Webinars	10%
Provide All Standards	10%
Regularly Scheduled Regional Training at OSHA and/or Regionally as well as on site	10%
More about Slip, Trip and Falls	6%
Updates or emails on important OSHA changes/regulations on the website	6%
Torch and Welding Safety	5%
Lockout/Tagout	5%
CPR	5%
PowerPoint's and documents that are not 10-20 years old	5%
Reference to other agencies, ANSI, DOT, EPA, DHEC	5%
Others locations for training other than Georgia Tech, Savannah and Atlanta	5%
Workplace Active Shooter	5%
Incident/Accident Investigation	5%
Hazard Assessment	5%
Training on OSHA changes, updates and new OSHA standards	5%

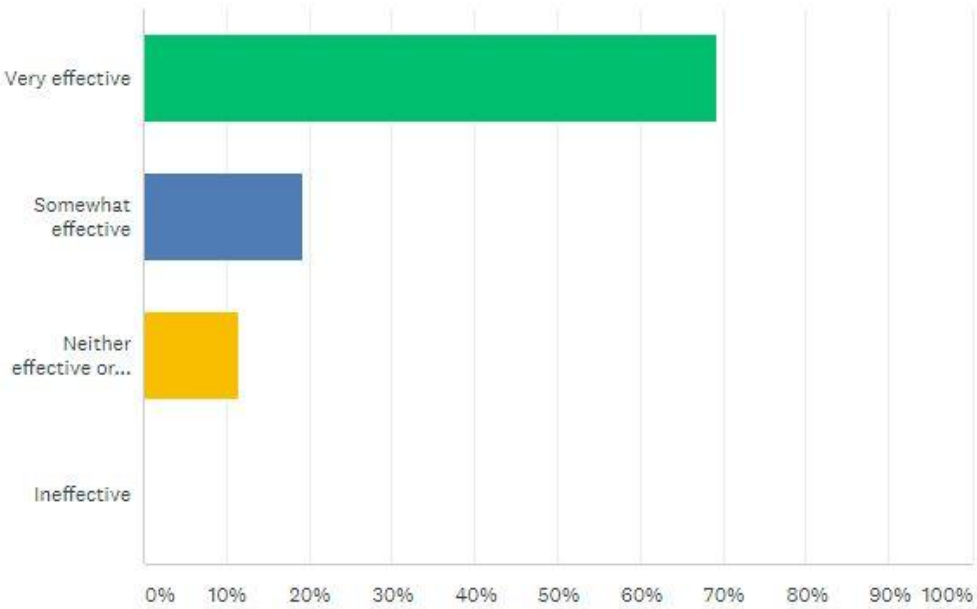
OSHA Changes,  
Updates and  
New Standards  
5%

## Employers Recommendations for Additional Services or Topics



**Question 8:**

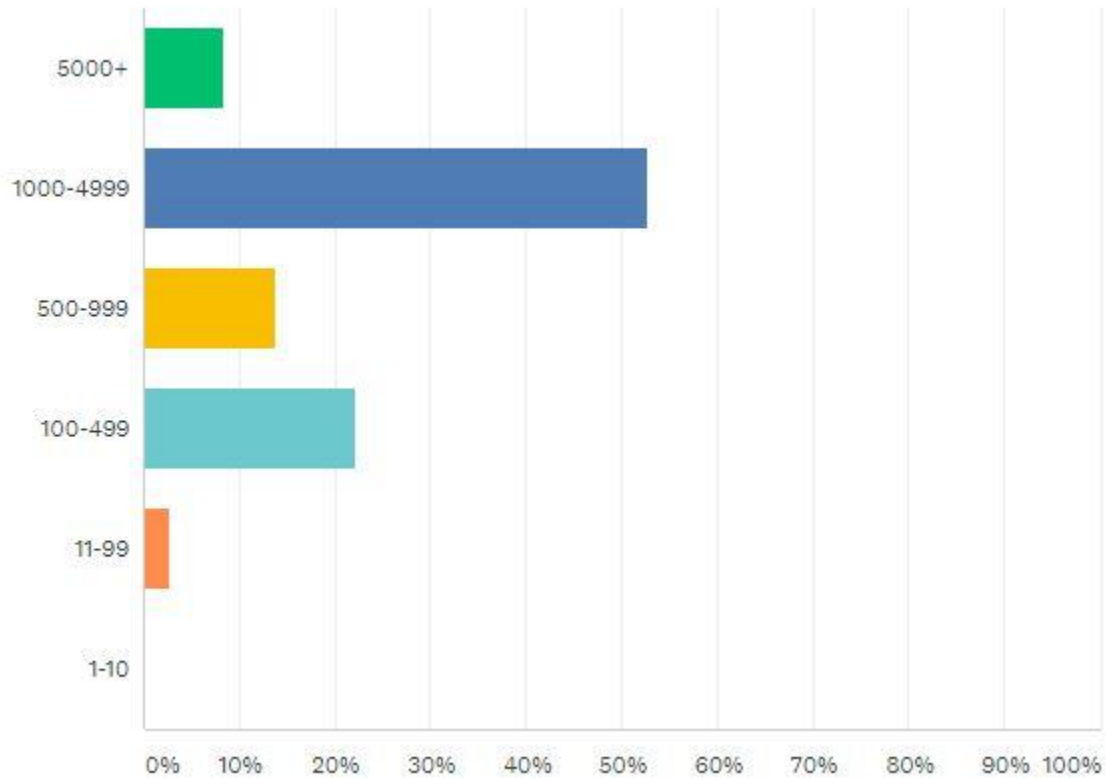
If your company/entity has utilized Outreach and Education's consultative and training services, how would you rate the effectiveness of the services provided:



ANSWER CHOICES	RESPONSES	
Very effective	69.23%	18
Somewhat effective	19.23%	5
Neither effective or ineffective	11.54%	3
Ineffective	0.00%	0
TOTAL		26

**Question 9:**

How many full time and part time employees would you estimate are employed by your company/entity?



ANSWER CHOICES	RESPONSES
5000+	8.33% 3
1000-4999	52.78% 19
500-999	13.89% 5
100-499	22.22% 8
11-99	2.78% 1
1-10	0.00% 0
TOTAL	36

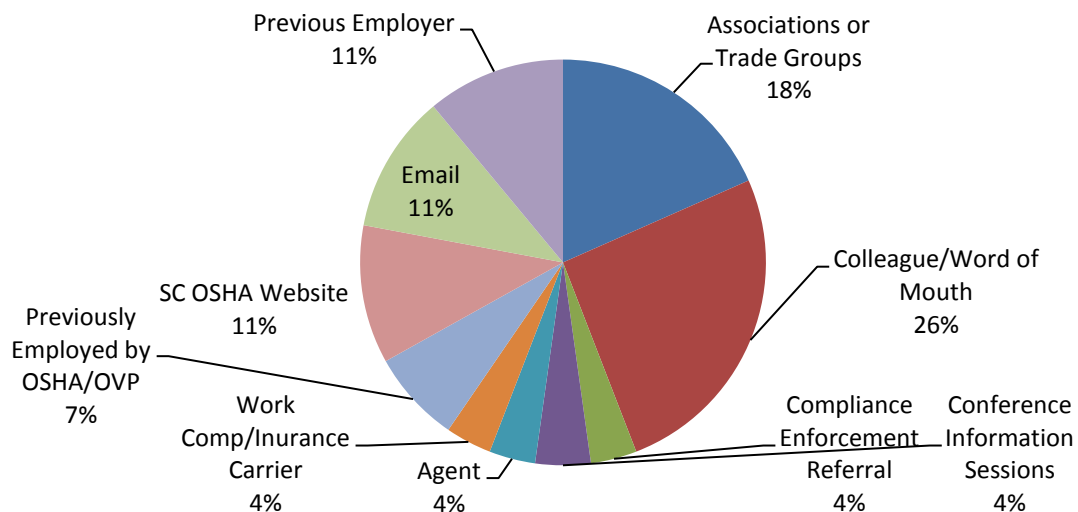


**Question 10:**

If you were aware of OSHA's Outreach and Education services prior to this survey, how did you hear about the programs (i.e. website, social media, colleague, word-of-mouth, compliance referral, etc)?

Colleague/Word of Mouth	26%
Associations or Trade Groups	18%
Email	11%
SC OSHA Website	11%
Previous Employment	11%
Used to work for OSHA/OVP	7%
Compliance Referral	4%
Conference Information Sessions	4%
Work Comp/Insurance Carrier	4%

### How Employers Heard About SC OSHA O&E Programs

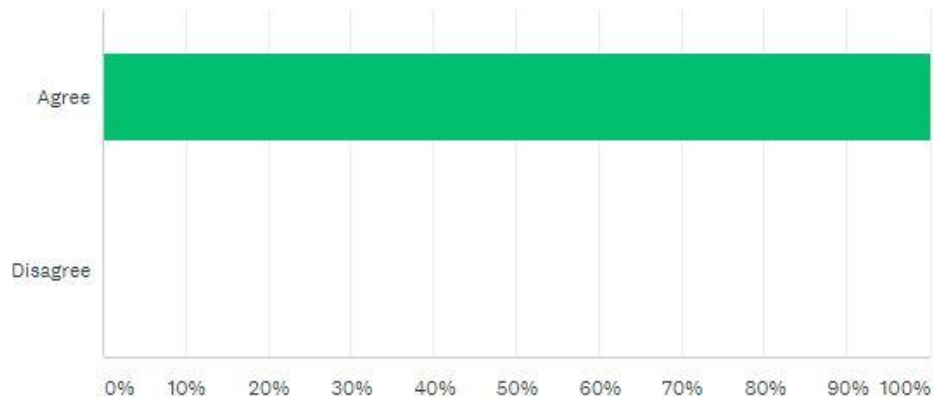


### Appendix 3: Public and Private Employers who experienced workplace injury, illness or fatality Survey Responses

#### Question 1:

The results of this brief survey will be utilized to improve the effectiveness of SC OSHA's Outreach and Education Program services. This survey and its results are anonymous and confidential. Thank you for your participation in this very important survey. For more information about SC OSHA's Outreach and Education Programs, please visit <http://scosha.llronline.com/> Please check Agree to continue:

All respondents agreed to continue and participated in the survey.

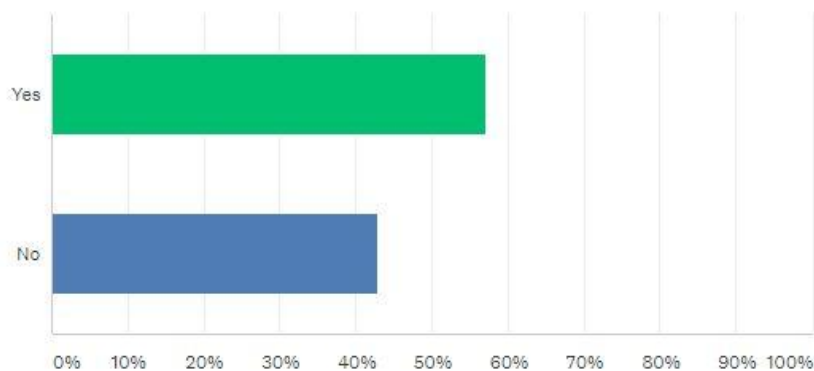


ANSWER CHOICES	RESPONSES
Agree	100.00% 14
Disagree	0.00% 0
Total Respondents: 14	

### Question 2:

If your company or entity has had prior contact with SC OSHA Compliance Enforcement for an inspection or investigation, prior to that contact were you aware of SC OSHA's Outreach and Education Program (formerly OSHA Voluntary Program - OVP) which provides confidential, no-cost compliance training and consultation services to employers in South Carolina?

Were Employers aware of SC OSHA's Outreach and Education programs prior to experience a workplace injury, illness or fatality:

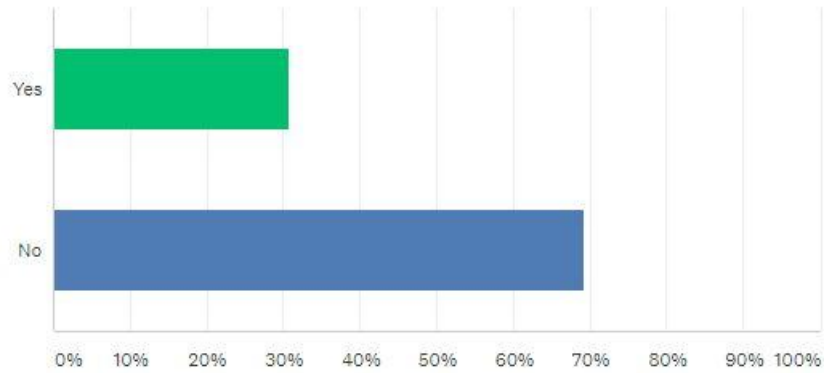


ANSWER CHOICES	RESPONSES	
Yes	57.14%	8
No	42.86%	6
Total Respondents: 14		

### Question 3:

Has your company/entity previously utilized SC OSHA's Outreach and Education services?

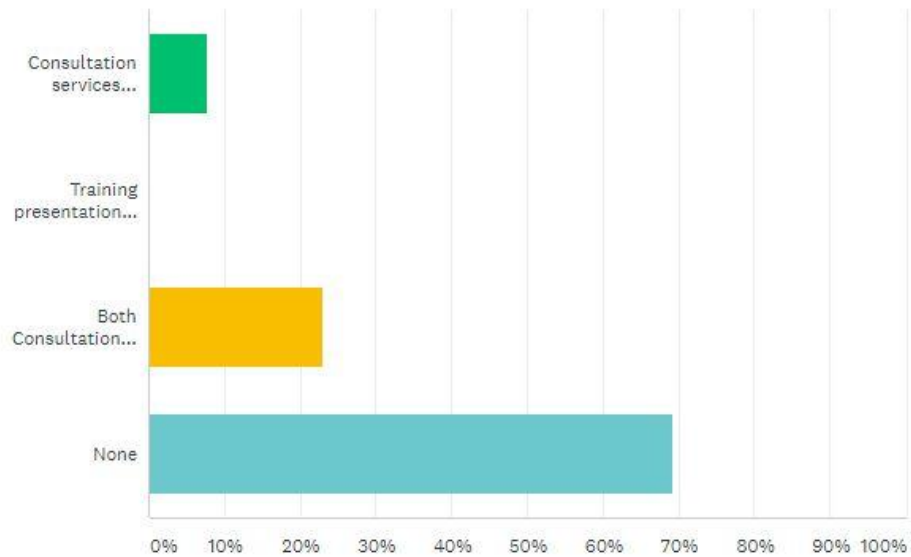
Did your employer utilize SC OSHA Outreach and Education programs prior to experiencing a workplace injury, illness or fatality?



ANSWER CHOICES	RESPONSES
Yes	30.77% 4
No	69.23% 9
Total Respondents: 13	

**Question 4:**

If your company/entity has utilized SC OSHA's Outreach and Education programs, which services were utilized?



ANSWER CHOICES	RESPONSES	
▼ Consultation services (Courtesy Inspections, Program Development, Industrial Hygiene monitoring services, etc)	7.69%	1
▼ Training presentation services	0.00%	0
▼ Both Consultation and Training services	23.08%	3
▼ None	69.23%	9
TOTAL		13

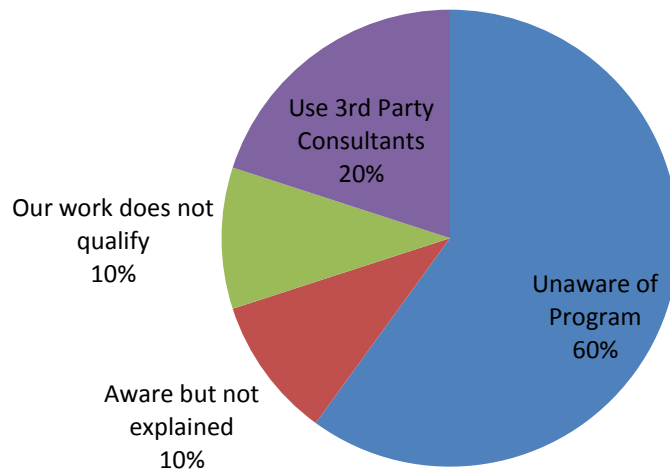
**Question 5:**

If your company/entity has NOT utilized SC OSHA's Outreach and Education program services, please describe why your entity has been hesitant or has not utilized the services:

Responses:

Unaware of the program	60%
Use third-party consultants and Fed OSHA online tools	20%
Was told it existed but was not explained what services were provided	10%
Our type of work does not fit with what is offered	10%

## Why Employers Did Not Utilize OSHA O&E

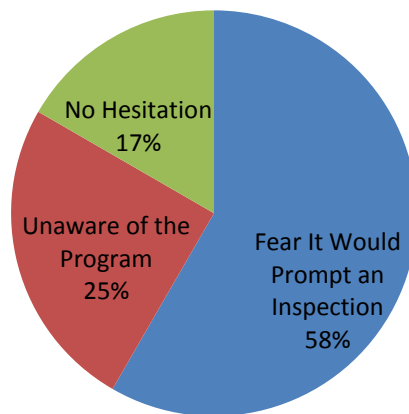


**Question 6:**

If your company/entity **HAS** utilized SC OSHA's Outreach and Education Program (or previously OVP services) but was initially hesitant to do so, can you describe the reason(s) for the hesitation?

Fear it would prompt an inspection	58%
Unaware of the program	25%
Have utilized/No Hesitation	17%

**Why Employers Were Hesitant to Utilize  
SC OSHA O&E**

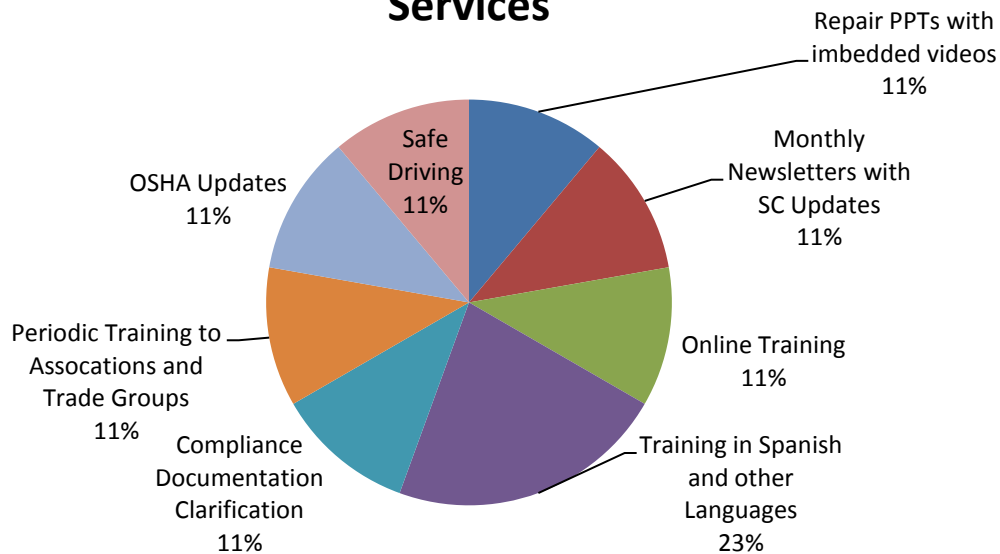


### Question 7:

What additional consultative services, training topics, presentation methods or services do you feel would be beneficial to employees and employers if offered or provided by SC OSHA Outreach and Education?

Training in Spanish/Other Languages	23%
Repair you PPT presentations with imbedded videos that don't function	11%
Monthly Newsletter Specific to SC Updates	11%
Online Training (on demand training and webinars)	11%
Compliance Documentation Clarification and Definitions	11%
Periodic Training to Association and Trade Groups	11%
OSHA Updates	11%
Safe Driving	11%

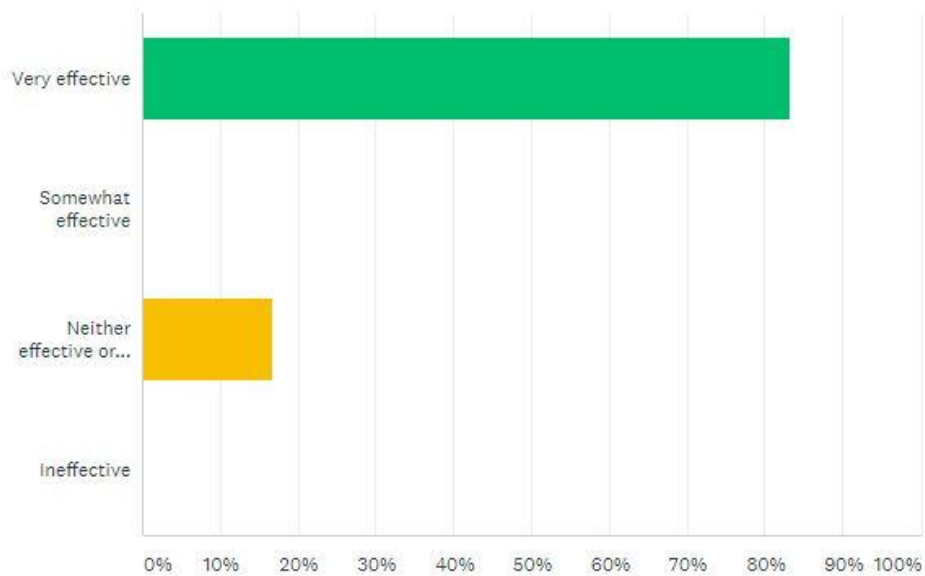
### Employers Recommendations for Additional Services





**Question 8:**

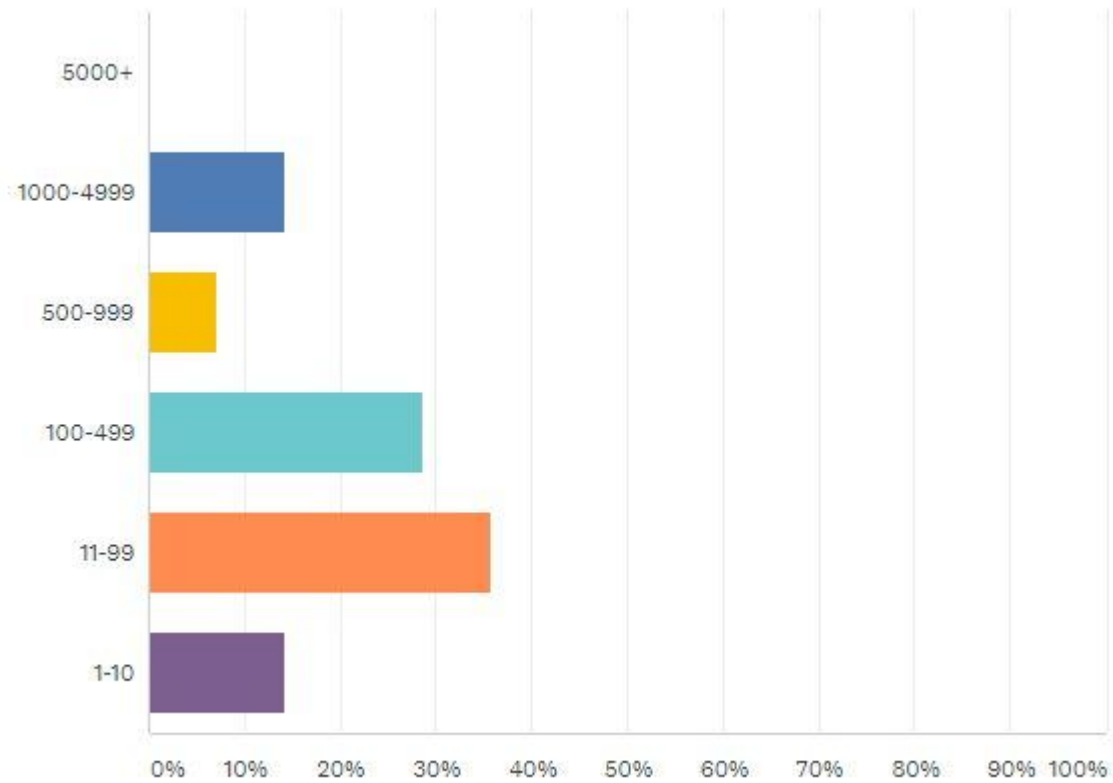
If your company/entity has utilized Outreach and Education's consultative and training services, how would you rate the effectiveness of the services provided:



ANSWER CHOICES	RESPONSES	
Very effective	83.33%	5
Somewhat effective	0.00%	0
Neither effective or ineffective	16.67%	1
Ineffective	0.00%	0
TOTAL		6

### Question 9:

How many full time and part time employees would you estimate are employed by your company/entity?



ANSWER CHOICES	RESPONSES
5000+	0.00% 0
1000-4999	14.29% 2
500-999	7.14% 1
100-499	28.57% 4
11-99	35.71% 5
1-10	14.29% 2
TOTAL	14

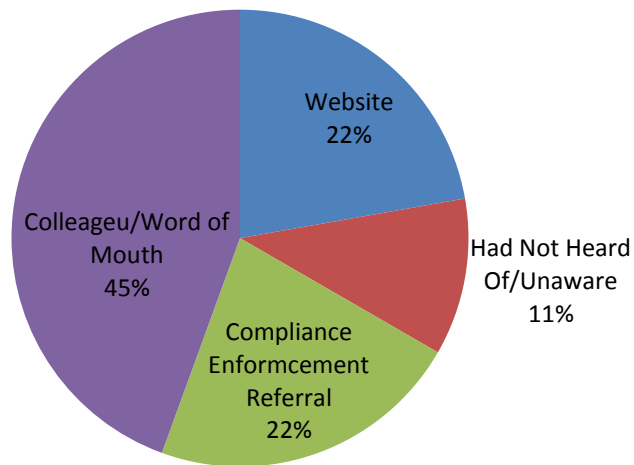
**Question 10:**

If you were aware of OSHA's Outreach and Education services prior to this survey, how did you hear about the programs (i.e. website, social media, colleague, word-of-mouth, compliance referral, etc)

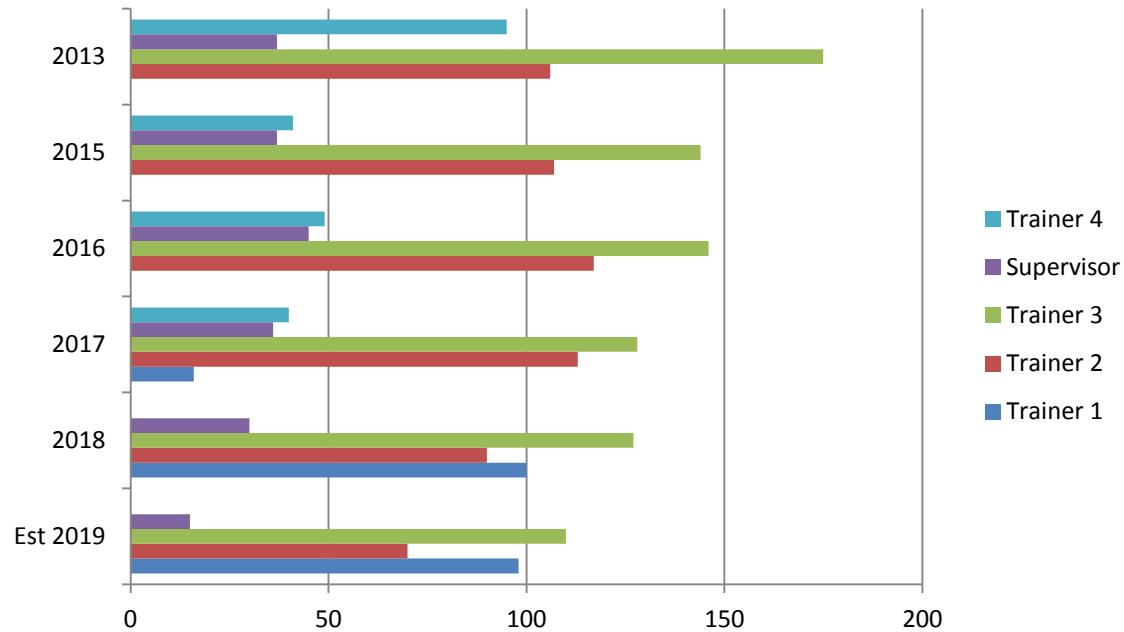
Responses:

Colleague/Word of Mouth	45%
Website	22%
Compliance Referral	22%
Had not heard of/Unaware	11%

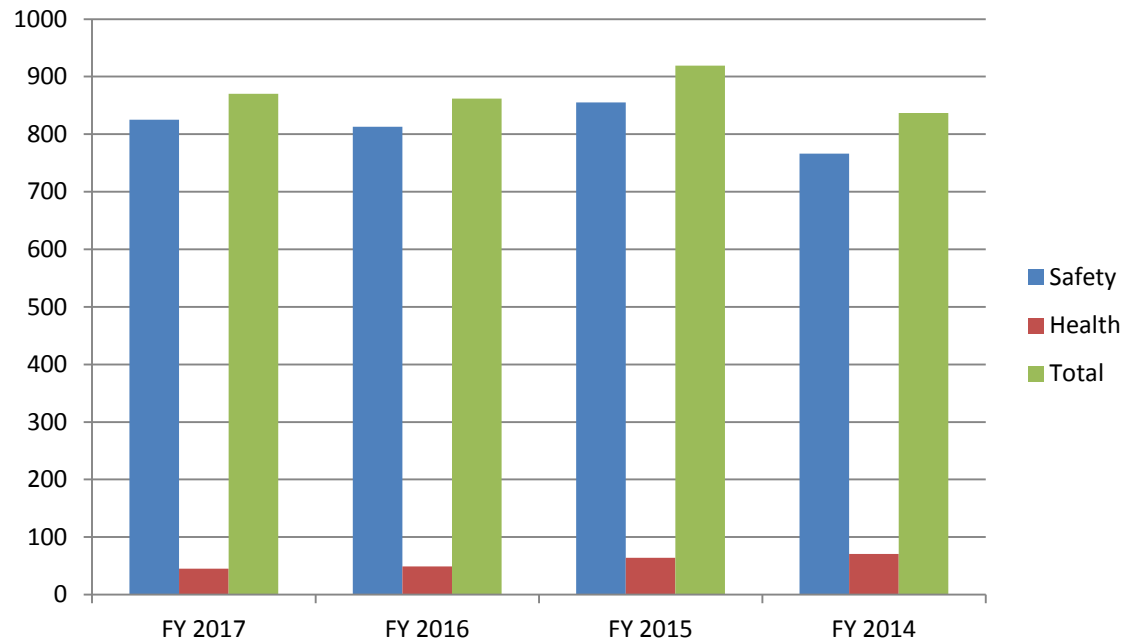
## How Did Employers Hear of SC OSHA O&E



#### Appendix 4: Training events provided by O&E trainers by year



#### Appendix 5: Consultation visits provided by O&E consultants by year



## **Appendix 6: Employer's recommendations for additional services or topics from Consultation and Training Service Evaluation Forms:**

**Training:** We expected more hands on with eye protection and PPE

**Consultation:** More time to complete some aspects of the evaluation.  
More time to make required collections.  
More OVP employees. This service is vital to the industry, especially small business.  
Have License Board make applicants aware of these services.  
Pre-consultative service knowledge questionnaire could help ID specific areas that could be addressed.  
In-depth info would be helpful.  
Please include correction due dates in paperwork.  
Provide attachment as interactive form that can be completed online.  
Allow follow-up visits on longer term projects.  
Fillable forms and email reports.  
Written reports hard to understand.  
Have consultant more closely follow an actual compliance inspection.  
More in-depth look at our written programs.  
Electronic response.  
Follow-up to receiving report with corrections.  
Electronic report that could be emailed.  
Promote this program to the industry.  
Schedule more visits.  
More time for corrective actions.  
Multiple locations. Would be nice to receive report sooner, many people involved.  
Provide more advice, and how to get OSHA training.  
Provide guidelines and services in a packet.  
Receive the report a little sooner.  
Additional staff to expand the program.  
More time to complete.  
Online or electronic report.